

Date: Sun, 9 May 93 16:28:40 PDT
From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>
Errors-To: Info-Hams-Errors@UCSD.Edu
Reply-To: Info-Hams@UCSD.Edu
Precedence: Bulk
Subject: Info-Hams Digest V93 #560
To: Info-Hams

Info-Hams Digest Sun, 9 May 93 Volume 93 : Issue 560

Today's Topics:

2m Amp - How??
ANS-128 BULLETINS
Cellular Scanner
Daily Solar Geophysical Data Broadcast for 08 May
KEPLERIAN BULLETIN 19 ARLK019
PRO-2022 SCANNER
Propagation Forecast Bulletin 18 ARLP018 (2 msgs)
QSL Route for 5X1XT

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: 9 May 93 16:20:31 GMT
From: news-mail-gateway@ucsd.edu
Subject: 2m Amp - How??
To: info-hams@ucsd.edu

> Check any edition of [ITALICS]The Radio Amateur's Handbook[italics]
>from the past 25 years or so. If you don't own a copy, check your local
>library.
>73,
>Doug K5DH

just in passing - the book had it's name changed sometime around the early
1980's to be called "The ARRL Handbook for Radio Amateurs" for some reason
(i recall seeing books called "The Radio Amateur's Handbook" and such
appearing in the early 80's by other authors so i guess it was an effort

to separate from the crowd at the bookstore - however, many general bookstores don't carry the "ARRL Handbook" in favor of the other books from outfits like Tab or Sams (that always seem to be way behind on the state of the art and have a off beat view of the service in general.))

i think this change occurred about the time the paperback edition was discontinued. i'll have to bug Bookstop next time i can get in there about not carrying the ARRL pubs - besides, that's the easiest way to get 10% off the top all the time....8)...especially nice that Bookstop carries the Callbooks.

then again - that's going to be another indicator that amateur radio interest is growing if the non-radio hobby shops are willing to carry books on radio hobbies (hummm...maybe the RSGB books too....done on a national basis and with some depth, Bookstop alone could put a dent into sales of these pubs through "traditional" vendors if the sales are static).

bill wb9ivr

Date: 9 May 93 23:43:18 GMT
From: news-mail-gateway@ucsd.edu
Subject: ANS-128 BULLETINS
To: info-hams@ucsd.edu

SB SAT @ AMSAT \$ANS-128.01
STS-55 SAREX MISSION CONCLUDED

HR AMSAT NEWS SERVICE BULLETIN 128.01 FROM AMSAT HQ
SILVER SPRING, MD MAY 8, 1993
TO ALL RADIO AMATEURS BT
BID: \$ANS-128.01

STS-55 Shuttle Amateur Radio Experiment (SAREX) Mission Concluded

After 10 days in space, over 160 orbits, and 4.1 million miles of space travel, the Space Shuttle Columbia successfully completed its SAREX mission this week with a landing at Edwards Air Force Base, CA. With over 300 packet contacts and numerous school contacts, the SAREX payload on this mission was kept very busy at times. One of the major highlights of this mission from a SAREX standpoint was the testing of the shuttle bay-mounted 1/4 wave vertical antenna on Orbits #61 and #62. From the ground station signal reports, it was observed that the signals appeared to be 10-12 dB stronger compared with the shuttle window-mounted antenna. This information is being compiled by the SAREX Working Group and is being forwarded to NASA officials. It is hoped that the results of this experiment will provide an incentive to NASA to have an outside shuttle bay-mounted antenna

to be included on all SAREX missions. Although the bay-mounted antenna was not expected to be used after its initial test, it did unexpectedly find further use late in the STS-55 mission when a N-connector was pulled loose from the window-mounted antenna. Astronauts quickly obtained permission to reconnect back to the 1/4 wave vertical antenna in the shuttle bay. Again signal comming received by SAREX officials reported that packet signals were "booming" into packet ground stations. The SAREX payload was finally stowed away on 5-MAY-93 around 20:50 UTC after working flawlessly during the 10 day STS-55 mission.

Because of electrical power conservation measures taken during this mission, the SAREX computer was turned off and thus was not recording any telemetry during different portions of this mission. However, the SAREX packet station was kept operational. The SAREX Working Group would very much like to examine this telemetry. If you copied the SAREX telemetry during this mission, the SAREX Working Group would like to receive a floppy disk from you of this telemetry. Please send your STS-55 SAREX telemetry to:

STS-55 Packet Logs
Frank Bauer (KA3HD0)
1804 Hopefield Road
Silver Spring, MD
20905

Please send a IBM PC compatible 3.5" floppy with the SAREX telemetry stored in an ASCII formatted file. For those who made a 2-way contact or heard the SAREX payload, you can receive a QSL card or a SWL card by sending your either card to the following address:

IBM Amateur Radio Club/1993
P.O. Box 1328
Boca Raton, FL
33429-1328

Please include a large self-addressed-stamped-envelope (SASE), 4" x 9.5" and sufficient postage or IRCs with your QSL card. Please indicate on the your if you made a 2-way contact or only heard STS-55 with a "STS-55 2-WAY" or "STS-55 SWL" on the outside of your envelope.

In final note from the SAREX Work Group. The Group is acutely aware that during this mission the astronauts were unable to make as many general 2M FM voice QSOs as they would have wanted. A complete rundown of General QSO (Voice and Packet) operations on the past two SAREX Flights (STS-56 and STS-55) will be provided in next weeks ANS bulletin. In particular, Frank Bauer (KA3HD0), AMSAT's V.P. for Manned Space Programs will address concerns raised by several radio amateurs regarding the apparent lack of general QSO operations on these flights. Please stay tuned.

[The ANS would like to thank Frank Bauer (KA3HDO) for the information which went into this bulletin item.]

/EX

SB SAT @ AMSAT \$ANS-128.02

PHAS-3D MODE B CLARIFICATION

HR AMSAT NEWS SERVICE BULLETIN 128.02 FROM AMSAT HQ

SILVER SPRING, MD MAY 8, 1993

TO ALL RADIO AMATEURS BT

BID: \$ANS-128.02

Joint Statement From AMSAT-DL & AMSAT-NA About Phase-3D Mode B Transponder

The following is a joint statement from AMSAT-DL President Karl Meinzer (DJ4ZC) and AMSAT-NA President Bill Tynan (W3X0) regarding Phase-3D:

"A translated version of Peter Guelzow's (DB20S) report of a Phase-3D satellite transponder meeting held near Munich on 17-18 April, 1993 has been recently circulating via the various AMSAT media. Unfortunately, as a direct result of the tedious process of translating Peter's notes from German to English, readers of the English text might also construe that transmitter and receiver compliments for Phase-3D are now final. We want to again emphasize this is not the case. The Munich meeting resulted in commitments from several individuals for a minimum viable baseline suite of equipment for the Phase-3D satellite. At this time, the transponder listing has NOT been finalized. Locations for additional transmitter and receiver modules, including a place for a 2M downlink transmitter, still remain both in the spacecraft structure as well as in the IF matrix.

"On the other hand, we are becoming increasingly concerned that precious little time remains for construction and delivery of any additional electronic components. The process of integrating our flight model spacecraft must commence, without fail, in July '94. This means the absolute latest time that delivery of qualified electronic components can occur is 1-DEC-94. That's about 600 days from now.

"While we are committed to keeping our options open for various additional transmitter and receiver combinations, we also cannot afford to put the entire project's schedule in jeopardy by waiting indefinitely for qualified builders of additional equipment to step forward. Put another way, the details of the various transmitter and receiver compliments will have to be finalized in the very near future.

"The volunteer efforts of each member of the Phase-3D team are focused on building the best satellite that we can with the resources we have available. We are still confident that once built and launched, Phase-3D will truly be the satellite for ALL amateurs. We remain firmly committed

to achieving that goal."

[The AMSAT News Service (ANS) would like to thank Karl Miezner (DJ4ZC) of ANSAT-DL and Bill Tynan (W3X0) from AMSAT-NA for this bulletin item.]

/EX

SB SAT @ AMSAT \$ANS-128.03

AMSAT OPS NET SCHEDULE

HR AMSAT NEWS SERVICE BULLETIN 128.03 FROM AMSAT HQ

SILVER SPRING, MD MAY 8, 1993

TO ALL RADIO AMATEURS BT

BID: \$ANS-128.03

AMSAT Operations Net Schedule

AMSAT Operations Nets are planned for the following times. Mode B Nets are conducted on A0-13 on a downlink frequency of 145.950 MHz and Mode J/L on a downlink of 435.970 MHz.

Date	UTC	Mode	Phs	NCS	Alt NCS
15-May-93	2030	B	148	WJ9F	VE2LVC
23-May-93	0030	B	156	VE2LVC	W9ODI
30-May-93	0000	B	62	N7NQM	W5IU

Any stations with information on current events would be most welcome. Also, those interested in discussing technical issues or who have questions about any particular aspect of OSCAR statellite operations are encouraged to join the OPS Nets. In the unlikely event that either the Net Control Station (NCS) or the alternate do not call on frequency, any participant is invited to act as the NCS.

Slow Scan Television on A0-13

SSTV sessions will be held on Saturdays and Sundays UTC:

Mode J	Downlink 435.980 MHz
Mode B after J	Downlink 145.960 MHz

OPS NETS will take priority, look for SSTV activity immediately after the net. SSTVer's are invited to join the Net to make schedules at other times if desired.

/EX

SB SAT @ AMSAT \$ANS-128.04

W6SP SERIOUSLY ILL

HR AMSAT NEWS SERVICE BULLETIN 128.04 FROM AMSAT HQ
SILVER SPRING, MD MAY 8, 1993
TO ALL RADIO AMATEURS BT
BID: \$ANS-128.04

Former AMSAT-NA Chairman-Of-The-Board Seriously Ill

Former AMSAT Chairman of the Board, John W. Browning (W6SP) is seriously ill at his California residence. Words of greetings and well-wishes are certainly in order to buoy up this stalwart who gave so much of himself to our hobby.

Many AMSAT members will recall John's steady leadership guiding AMSAT-NA into the Phase-3 era in the Eighties whilst trying (mostly successfully) to coax an unruly herd of prima donna techies (and would-be techies) in the same general direction. Many will also remember his always interesting column, "W6 Space Philosopher" in AMSAT's magazine, "Orbit".

Shot down twice in WWII, a Korean war fighter pilot, and a veteran of more than thirty years in the Air Force, he came to be known as "Colonel Electric" for his many space satellite program achievements including the MILSTAR which he virtually invented. He earned the Distinguished Service Medal upon retirement, an honor usually reserved for senior general officers.

John brought his brand of truly inspired leadership and clear vision to AMSAT at an important transition period where AMSAT-NA became one of a family of significant AMSAT organizations with a need to share program decisions on an international scale. He understood the "new AMSAT realities" long before many did since he had experienced similar scenarios in his work with NATO satellite managers.

Now W6SP is "down for maintenance" and his spirits could certainly benefit from hearing from his many friends in the Amateur Radio community who have benefitted through his contributions and simply through knowing him.

QSLs or letters may be addressed to John at:

John W. Browning (W6SP)
6202 Lochvale Drive
Rancho Palos Verdes, CA, 90274, USA

Or, WA2LQQ would pleased to relay your greeting messages sent to WA2LQQ over UO-22, KO-23 or via the INTERNET: rip@pandora.sf.ca.us

[The AMSAT News Service (ANS) would like to thank Vern Riportella (WA2LQQ)

for this bulletin item.]

/EX

SB SAT @ AMSAT \$ANS-128.05
WEEKLY OSCAR STATUS REPORTS

HR AMSAT NEWS SERVICE BULLETIN 128.05 FROM AMSAT HQ
SILVER SPRING, MD MAY 8, 1993
TO ALL RADIO AMATEURS BT
BID: \$ANS-128.05

Weekly OSCAR Status Reports: 08-MAY-93

A0-10: AMSAT-OSCAR-10 is still operational in Mode-B. The telemetry beacon no longer exists. However, despite good signals from the Mode-B transponder, there are very few stations using the transponder. [WD4AHZ]

A0-13: ATTITUDE CHANGE

L QST *** A0-13 TRANSPONDER SCHEDULE *** 1993 May 10 - May 31

Mode-B : MA 0 to MA 130 ! Omnis MA 250 - MA 60

Mode-BS : MA 130 to MA 180 !<- S transponder; B trsp. is ON

Mode-S : MA 180 to MA 190 !<- S transponder; B trsp. is OFF

Mode-LS : MA 190 to MA 195 !<- S beacon + L transponder

Mode-JL : MA 195 to MA 210 ! Bon/Blat 210/0

Mode-B : MA 210 to MA 256 ! Move to attitude 120/0, May 31

Please don't uplink to B, MA 180-190. Interferes with Mode S.

Magnetorquing from attitude 180/0 to 210/0 will commence on 08-MAY-93 [Sat] 20:09 UTC, ORBIT 3752 and will continue for 6 perigees. The new schedule will be uploaded during Mode-L on orbit 3756, so it (only) will contain two Mode J/L/S sessions: MA 130-150 and 190-210. Mode S will be ON for nearly 3 hours, MA 130 to MA 195. New Mode-S stations appear daily. During MA 130-180 you will have to endure the coupling from Mode-B users operating at 145.880 - 145.920 MHz. Either work between them, use as test signals or go X-band. MA 180-190 is Mode-S transponder exclusive (plus Mode-B beacon). MA 190-195 is Mode S beacon (plus Mode-L transponder).
[G3RUH/VK5AGR/DB20S]

A0-21: The Dual-Hop (DoHop) experiments are planned from A0-21 through the RS-10 bird on 16-MAY-93. Stations wishing to participate should uplink on CW or Lower Side Band (LSB) on A0-21 between 435.100 and 435.110 MHz and call "CQ DoHop de" your call sign. If you are not taking part in the DoHop experiments, you are asked to monitor the RS-10 signals on Mode-A. Signal reports will be appreciated. In your signal reports, please note the time in UTC, frequency, and the location of the station heard. Please send your reports to W2RS @ WA2SNA.#NJ.USA.NA or to GONKA @ GB7DTX.GBR.EU. [GONKA]

F0-20: The F0-20 Ground Control Station, JJ1ZUT, announced that F0-20's operational schedule during the month of May will be as follows:

Analog Mode Operation(in UTC):
May 12 11:52 <---> May 13 10:20
May 19 10:20 <---> May 20 10:40
May 26 10:50 <---> May 27 11:08

[JJ1WTK/3]

AO-16: Operating normally and has a number of interesting education files regarding the W0-18 spectrometer experiment. [WH6I]

L0-19: L0-19 is operating normally. The CW beacon is on again. You can copy the CW beacon on a downlink frequency of 437.125 MHZ and it is quite strong. The CW beacon is in operation on Wednesdays only. The beacon output power is near 800 mW and it transmits eight telemetry channels and then its identification. The other PSK transmitter is on a downlink frequency of 437.150 MHZ and is used for BBS operations. This week new software has arrived so our software and control team is studying the best way to start to load it in order to improve the operation of L0-19. If you want like to receive a QSL card from AMSAT-Argentina, please send your telemetry reports to our address:
AMSAT ARGENTINA, P.O. Box 9 Suc. 1, 1401-CAPITAL FEDERAL. [WH6I & LW2DTZ]

U0-22: Operating normally. [WH6I]

K0-23: The BBS has been down for about 48 hours. No digital data output. [WH6I]

The AMSAT NEWS Service (ANS) is looking for volunteers to contribute weekly OSCAR status reports. If you have a favorite OSCAR which you work on a regular basis and would like to contribute to this bulletin, please send your observations to WD0HHU at his CompuServe address of 70524,2272, on INTERNET at wd0hhu@amsat.org, or to his local packet BBS in the Denver, CO area, WD0HHU @ W0LJF.#NECO.CO.USA.NOAM. Also, if you find that the current set of orbital elements are not generating the correct AOS/LOS times at your QTH, PLEASE INCLUDE THAT INFORMATION AS WELL. The information you provide will be of value to all OSCAR enthusiasts.

/EX

SB SAT @ AMSAT \$ANS-128.06
ARSENE INITIAL KEPLERIAN SET

HR AMSAT NEWS SERVICE BULLETIN 128.06 FROM AMSAT HQ
SILVER SPRING, MD MAY 8, 1993
TO ALL RADIO AMATEURS BT
BID: \$ANS-128.06

Initial Keplerian Element Set For ARSENE

According to F6BVP, the ARSENE OSCAR satellite is scheduled to lift-off from the Kourou, French Guiana spaceport on 12-MAY-1993 at 00:51:00 UTC. Based on information given by F6BVP, the following is the initial keplerian element set:

Satellite: ARSENE
Catalog number: 00001
Epoch time: 93132.05451390
Element set: 001
Inclination: 4.9999 deg
RA of node: 227.8710 deg
Eccentricity: 0.7320529
Arg of perigee: 178.0490 deg
Mean anomaly: 40.5970 deg
Mean motion: 2.25970969 rev/day
Decay rate: 0.0e-00 rev/day^2
Epoch rev: 0

This element set will be good until Orbit #6 when at that time, the ARSENE rocket motor will be fired in order to raise the perigee and to circularize the orbit. At this time there is no AMSAT Launch Information Net (ALINS) net is planned. However, please stay tuned to AMSAT HF/VHF nets for up-to-the-minute information about the status of ARSENE.

[The AMSAT News Service (ANS) would like to thank F6BVP for the information which went into this bulletin item.]

/EX

Date: 9 May 1993 15:45:21 -0400
From: usc!howland.reston.ans.net!gatech!destroyer!mudos!mudos!not-for-mail@network.UCSD.EDU
Subject: Cellular Scanner
To: info-hams@ucsd.edu

little@nuts2u.enet.dec.com (nuts2u::little) writes:
>My reference was to the new scanner legislation that will prevent
>getting FCC approval for equipment that can automatically switch
>between 4 or more frequencies in the 30-960 MHz band.

No, no, no, NO, NO!

The new "scanner law" defines "scanner" as any radio receiver which can automatically switch between four or more frequencies in the 30MHz to 960MHz band. However, it does *not* deny FCC approval for any such

device. Rather, any such device must not be capable of receiving and demodulating signals in the frequency range allocated to the cellular telephone service, and must not be easily modified to receive those signals. Frequency converters that shift the signals in the cellular band to another frequency range are also denied approval.

This does **not** cover cordless phones, since while they can automatically switch between four or more channels in the range 30MHz-960MHz, they don't receive signals in the cellphone bands.

It also doesn't apply to scanners that can receive all of the 800MHz band **except** the cellphone subbands.

What I wonder, though, is whether it covers scanners that can receive cellphone transmissions as a result of side-effects of the receiver design...i.e., the old $(2 \times \text{IF}) + \text{freq.}$ trick.

--

Marc Unangst, N8VRH | "People who love sausage and respect the law
mju@mudos.ann-arbor.mi.us | should never watch either one being made."
| -The Sausage Principle

Date: 9 May 93 22:00:58 GMT
From: news-mail-gateway@ucsd.edu
Subject: Daily Solar Geophysical Data Broadcast for 08 May
To: info-hams@ucsd.edu

!!BEGIN!! (1.0) S.T.D. Solar Geophysical Data Broadcast for DAY 128, 05/08/93
10.7 FLUX=128.7 90-AVG=129 SSN=104 BKI=5455 5444 BAI=037
BGND-XRAY=B4.0 FLU1=6.4E+05 FLU10=1.2E+04 PKI=5455 5344 PAI=035
BOU-DEV=088,045,075,089,072,050,053,060 DEV-AVG=066 NT SWF=00:000
XRAY-MAX= C2.8 @ 0316UT XRAY-MIN= B3.0 @ 2356UT XRAY-AVG= B6.9
NEUTN-MAX= +003% @ 1620UT NEUTN-MIN= -002% @ 2255UT NEUTN-AVG= +0.0%
PCA-MAX= +0.1DB @ 2315UT PCA-MIN= -0.1DB @ 1240UT PCA-AVG= +0.0DB
BOUTF-MAX=55434NT @ 0003UT BOUTF-MIN=55359NT @ 0927UT BOUTF-AVG=55388NT
GOES7-MAX=P:+000NT@ 0000UT GOES7-MIN=N:+000NT@ 0000UT G7-AVG=+000,+000,+000
GOES6-MAX=P:+140NT@ 1645UT GOES6-MIN=N:-154NT@ 0153UT G6-AVG=+094,-023,-074
FLUXFCST=STD:130,135,135;SESC:130,135,135 BAI/PAI-FCST=020,015,010/020,018,015
KFCST=3325 5223 3324 4223 27DAY-AP=009,014 27DAY-KP=3321 2222 4532 2222
WARNINGS=*SWF
ALERTS=
!!END-DATA!!

NOTE: The Effective Sunspot Number for 07 MAY 93 was 63.5.
The Full Kp Indices for 07 MAY 93 are: 2- 4- 2- 2+ 3o 3o 3+ 5o

Date: Sun, 09 May 93 08:30:24 GMT
From: swrinde!zaphod.mps.ohio-state.edu!mstar!n8emr!bulletin@network.UCSD.EDU
Subject: KEPLERIAN BULLETIN 19 ARLK019
To: info-hams@ucsd.edu

=====
| Automatic relayed from packet radio via |
| N8EMR's Ham BBS, 614-895-2553 |
=====

ZCZC SK31
QST DE W1AW
KEPLERIAN BULLETIN 19 ARLK019
FROM ARRL HEADQUARTERS
NEWINGTON, CT MAY 8, 1993
TO ALL RADIO AMATEURS

THANKS TO NASA, AMSAT AND N3FKV FOR THE FOLLOWING KEPLERIAN DATA.

DECODE 2-LINE ELSETS WITH THE FOLLOWING KEY:

1 AAAAAU 00 0 0 BBBB.BBBBBBBB .CCCCCCC 00000-0 00000-0 0 DDDZ
2 AAAAA EEE.EEEE FFF.FFFF GGGGGGG HHH.HHHH III.IIII JJ.JJJJJJJKKKKKZ
KEY: A-CATALOGNUM B-EPOCHTIME C-DECAY D-ELSETNUM E-INCLINATION F-RAAN
G-ECCENTRICITY H-ARGPERIGEE I-MNANOM J-MNMOTION K-ORBITNUM Z-CHECKSUM

A0-10

1 14129U 83058 B 93124.42849320 0.00000034 99999-4 0 9896
2 14129 27.0747 27.2622 6015468 78.5197 339.5310 2.05878384 46395

RS-10/11

1 18129U 87054 A 93123.89956381 0.00000088 89554-4 0 6078
2 18129 82.9214 271.3400 0013179 79.4290 280.8335 13.72315699293771

U0-11

1 14781U 84021 B 93124.56852406 0.00000449 80577-4 0 4139
2 14781 97.8152 152.8928 0012653 131.4295 228.8000 14.68970879490318

RS-12/13

1 21089U 91007 A 93123.04532099 0.00000053 50149-4 0 4004
2 21089 82.9220 315.5980 0029141 167.4565 192.7323 13.74020894112321

A0-13

1 19216U 88051 B 93125.56862013 -.00000276 99999-4 0 5992
2 19216 57.7831 318.3440 7244468 314.3833 5.3423 2.09727507 5961

U0-14

1 20437U 90005 B 93126.71472659 0.00000124 55998-4 0 7468
2 20437 98.6160 211.4501 0010856 308.6852 51.3360 14.29766734171505

A0-16

1 20439U 90005 D 93124.68717026 0.00000123 55715-4 0 5536
2 20439 98.6219 210.2869 0011047 314.8630 45.1653 14.29826209171221

DO-17

1 20440U 90005 E 93123.21133788 0.00000126 56920-4 0 5557
2 20440 98.6235 209.0275 0011161 317.7534 42.2794 14.29960947171020

WO-18

1 20441U 90005 F 93120.24134421 0.00000137 61048-4 0 5574
2 20441 98.6228 206.1135 0012110 327.6481 32.3954 14.29941112170606

LO-19

1 20442U 90005 G 93122.76508103 0.00000112 51109-4 0 5543
2 20442 98.6234 208.7808 0012097 319.8820 40.1473 14.30030380170974

FO-20

1 20480U 90013 C 93116.63542355 0.00000015 63811-4 0 4443
2 20480 99.0491 342.5753 0540850 203.3160 154.2545 12.83219140150704

AO-21

1 21087U 91006 A 93126.92005379 0.00000085 82656-4 0 7531
2 21087 82.9398 83.3668 0035730 134.3172 226.0896 13.74516925113777

UO-22

1 21575U 91050 B 93119.22007906 0.00000163 62211-4 0 2521
2 21575 98.4760 196.1122 0008332 85.2439 274.9701 14.36816290 93636

KO-23

1 22077U 92052 B 93125.12350117 0.00000000 99999-4 0 1008
2 22077 66.0766 54.3459 0007470 204.5660 155.4969 12.86277821 34305

MIR

1 16609U 86017 A 93127.21893966 0.00012137 16096-3 0 539
2 16609 51.6202 65.2408 0000282 184.3741 175.7206 15.58693098412745

KEPLERIAN BULLETINS ARE TRANSMITTED TWICE WEEKLY FROM W1AW.
THE NEXT SCHEDULED TRANSMISSION OF THESE DATA WILL BE TUESDAY,
MAY 11, 1993, AT 2230Z ON BAUDOT, AMTOR AND ASCII.
NNNN

Date: 7 May 93 17:56:00 GMT
From: swrinde!gatech!destroyer!cs.ubc.ca!alberta!nebulus!freddy!
dave.short@network.UCSD.EDU
Subject: PRO-2022 SCANNER
To: info-hams@ucsd.edu

Thinking of buying a Radio Shack Pro-2022 scanner, does anyone know if
this scanner can be modified to recieve Satellite images? Also does
anyone out there have one, how good is it as a scanner,etc. Any
information on it is appreciated. Thank you

Date: Sun, 09 May 93 08:30:24 GMT
From: swrinde!zaphod.mps.ohio-state.edu!mstar!n8emr!bulletin@network.UCSD.EDU

Subject: Propagation Forecast Bulletin 18 ARLP018
To: info-hams@ucsd.edu

```
=====
| Automatic relayed from packet radio via |
| N8EMR's Ham BBS, 614-895-2553 |
=====
```

ZCZC AP79
QST de W1AW
Propagation Forecast Bulletin 18 ARLP018
>From Tad Cook, KT7H
Seattle, WA May 7, 1993
To all radio amateurs

Solar activity has been low and conditions quiet. On May 1 the solar flux went down to 102.6, and is now headed for a modest peak of 125 forecast for this weekend. Geomagnetic conditions have been so stable that we have had several periods over the past week when the Boulder k index was one or lower. The only unstable time was at 1200z on May 3 when the K index reached 4. There is a possibility of some instability over this weekend with an A index around 25.

Following the weekend the flux should meander down toward 115 around the middle of the month, head to 125 around May 21, and then drop back toward 100 near the end of the month.

K8MLV of Pueblo, Colorado sent a comment concerning the statement in ARLP017 that the current solar cycle peaked with flux values of 213.1 in June 1989 and 207.7 in July 1991. These were smoothed monthly solar flux numbers. K8MLV reports that his records of daily flux values show a peak of 327 on June 15, 1989 and 251 on July 5, 1991, and that there was another major peak of 367 on January 30, 1991, and two lesser peaks of 315 on August 26, 1990 and 303 on January 31, 1992. He also reports that the peak in daily solar flux of 367 was the highest since the previous cycle, when it reached 383 on November 10, 1979.

Sunspot numbers from April 29 to May 5 were 60, 51, 41, 42, 55, 91 and 90, with a mean of 61.4. 10.7 cm flux was 106.5, 105.8, 102.6, 103.1, 107.1, 110.6 and 117.9, with a mean of 107.7.

This week's projection is from Louisiana to Japan. 80 meters should be open from 0930 to 1100Z, peaking around 1030Z. 40 meters should be open from 0900 to 1200Z, peaking around 1000 to 1100Z. 30 meters should open from 0800 to 1300Z, and 20 meters from 0530 to 1500Z, with best conditions most days from 1100 to 1230Z. 17 meters should have moderate openings from 0200 to 0430Z, and on some days from

1200 to 1500Z. 17 meter openings actually should start modestly a few hours before sunset on the Louisiana end, gradually getting better into the evening. 15 meters does not look very good over this path, but on some days there should be some modest openings from 2130 to 2330Z and from 0230 to 0300Z. 12 and 10 meters do not look promising.

NNNN

Date: Sun, 09 May 93 14:20:52 GMT
From: swrinde!zaphod.mps.ohio-state.edu!mstar!n8emr!bulletin@network.UCSD.EDU
Subject: Propagation Forecast Bulletin 18 ARLP018
To: info-hams@ucsd.edu

=====
| Automatic relayed from packet radio via |
| N8EMR's Ham BBS, 614-895-2553 |
=====

ZCZC AP79
QST de W1AW
Propagation Forecast Bulletin 18 ARLP018
>From Tad Cook, KT7H
Seattle, WA May 7, 1993
To all radio amateurs

Solar activity has been low and conditions quiet. On May 1 the January 31, 1992. He also reports that the peak in daily solar flux of 367 was the highest since the previous cycle, when it reached 383 on November 10, 1979.

Sunspot numbers from April 29 to May 5 were 60, 51, 41, 42, 55, 91 and 90, with a mean of 61.4. 10.7 cm flux was 106.5, 105.8, 102.6, 103.1, 107.1, 110.6 and 117.9, with a mean of 107.7.

This week's projection is from Louisiana to Japan. 80 meters should be open from 0930 to 1100Z, peaking around 1030Z. 40 meters should be open from 0900 to 1200Z, peaking around 1000 to 1100Z. 30 meters should open from 0800 to 1300Z, and 20 meters from 0530 to 1500Z, with best conditions most days from 1100 to 1230Z. 17 meters should have moderate openings from 0200 to 0430Z, and on some days from 1200 to 1500Z. 17 meter openings actually should start modestly a few hours before sunset on the Louisiana end, gradually getting better into the evening. 15 meters does not look very good over this path, but on some days there should be some modest openings from 2130 to 2330Z and from 0230 to 0300Z. 12 and 10 meters do not look promising.

NNNN

Date: Sun, 9 May 1993 13:38:43 -0400
From: usc!howland.reston.ans.net!europa.eng.gtefsd.com!fs7.ece.cmu.edu!
news.sei.cmu.edu!bb3.andrew.cmu.edu!andrew.cmu.edu!kp2a+@network.UCSD.EDU
Subject: QSL Route for 5X1XT
To: info-hams@ucsd.edu

Does anyone know the QSL route for 5X1XT -- station in Uganda??

Thanks for your help.

Keith Poole K7MOA/3

End of Info-Hams Digest V93 #560
